



What's Happening

May 2016

# How are teacher evaluation data used in five Arizona districts?

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## Key findings

This study of how multiple-measure teacher evaluation data are used in five volunteering Arizona school districts found that in most of the districts:

- District staff and teachers agree that the evaluation system informs some types of professional development. While district staff indicate that they provide customized coaching and support informed by teacher evaluations, teachers view themselves as responsible for their own professional development.
- Online systems facilitate timely observation-based feedback.
- Evaluation data are not systematically used to identify teacher leaders or to assign teachers to schools or classrooms.

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REL 2016–142

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May 2016

This report was prepared for the Institute of Education Sciences (IES) under Contract ED-IES-12-C-0002 by Regional Educational Laboratory (REL) West at WestEd. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

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Makkonen, R., Tejwani, J., & Venkateswaran, N. (2016). *How are teacher evaluation data used in five Arizona districts?* (REL 2016–142). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. Retrieved from <http://ies.ed.gov/ncee/edlabs>.

This report is available on the Regional Educational Laboratory website at <http://ies.ed.gov/ncee/edlabs>.

## **Summary**

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States and districts across the country are adopting new strategies to evaluate teacher effectiveness. These strategies are intended to assess educators' strengths and limitations and guide decisions about opportunities for professional growth. Yet little research has explored how teacher evaluation data are used in administrative decisions. This study describes how data from teacher evaluations are used in five volunteering Arizona school districts, with a focus on how the data guide teachers' professional development and influence decisions about teachers' compensation, assignment to classrooms or schools, and remediation and retention.

During the 2014/15 school year the study districts administered their own teacher evaluation systems, which were developed to align with state evaluation regulations passed in 2011. Because of the variations in system design and implementation, this study treats each district as an independent case. The study team analyzed interviews with district officials and instructional coaches and online surveys of school principals and teachers, collected by West Comprehensive Center on behalf of the Arizona Department of Education, and produced five district case summaries, which are included in appendix C. The report summarizes common experiences, practices, and perceptions related to the use of teacher evaluation data reported across three or more of the districts:

- *Online systems facilitate timely observation-based feedback.* District officials in the four districts with an online system that supports their observational framework (either developed by the district or supported by a vendor) emphasized that the system affords teachers access to considerable feedback in a timely manner and promotes transparency and common understanding when teachers meet face-to-face with their coach or evaluator.
- *Evaluation data influence subsequent professional development.* Evaluation data shape the work of instructional coaches (who play no formal role in evaluations) and the support opportunities (books, webinars, and online videos) that are suggested for teachers within district online systems. In three districts more than half of responding teachers agreed that they engage in professional development opportunities linked directly to the needs identified in their evaluations, and in four districts more than half of responding teachers agreed that the next steps they need to take for their professional growth are clear to them after their evaluations.
- *Student test data are incorporated into teachers' final performance classifications in multiple ways, but observation data are perceived as more useful for professional development decisions because they are collected over repeated occasions and made available during the school year.* In accordance with Arizona requirements the districts incorporate student test data into teachers' final performance classifications in various ways. However, district officials reported that the summative nature of these teacher-level data (which are usually conveyed as a single score) limit their formative value. When results are based on statewide exams, the data are not released until summer and thus are not reviewed with teachers until the beginning of the next school year—which is also reportedly problematic.
- *Teachers view themselves as responsible for their own professional growth and are somewhat skeptical of school and district professional development.*
- *Evaluation data are not systematically used to identify teacher leaders or to assign teachers to schools or classrooms, but such data serve as the basis for decisions on remediation and allocation of state performance pay funds.*

- *Teachers were more skeptical than administrators about the benefits of their new evaluations.* District officials acknowledged anxiety among teachers about the evaluation process implemented in response to the 2011 state requirements, particularly related to component measures such as test scores and student and parent surveys that teachers suspect may be unreliable and unduly influenced by factors beyond their control.

Findings from the study suggest positive benefits from the organizational structures that support the review of evaluation data during the school year—standards-based observation frameworks, benchmark assessments, professional learning communities, and instructional coaching and feedback. The evident skepticism suggests that teachers may not perceive evaluations as entirely credible and relevant to their work.

The study did not attempt to characterize the fidelity or quality of the implementation of local teacher evaluations. The study is limited by its small, voluntary sample of districts as well as by low survey response rates among teachers.

## Contents

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<b>Summary</b>	<b>i</b>
<b>Why this study?</b>	<b>1</b>
<b>What the study examined</b>	<b>2</b>
<b>What the study found</b>	<b>3</b>
Teachers and principals know what data are being collected as part of teacher evaluations and interact multiple times during the year to review and discuss standards-based observation data	3
Online systems facilitate timely observation-based feedback	4
Evaluation data influence subsequent professional development	4
Student test data are incorporated into teachers' final performance classifications in multiple ways, but observation data are perceived as more useful for professional development decisions because they are collected over repeated occasions and made available during the school year	5
Teachers view themselves as responsible for their own professional growth and are somewhat skeptical of school and district professional development	5
Evaluation data are not systematically used to identify teacher leaders or to assign teachers to schools or classrooms, but such data serve as the basis for decisions on remediation and allocation of state performance pay funds	6
Teachers were more skeptical than administrators about the benefits of their new evaluations	7
<b>Implications of the study findings</b>	<b>8</b>
<b>Limitations of the study</b>	<b>9</b>
<b>Appendix A. Data sources and methodology</b>	<b>A-1</b>
<b>Appendix B. Protocol and code book for district interviews</b>	<b>B-1</b>
<b>Appendix C. Case summaries</b>	<b>C-1</b>
<b>Notes</b>	<b>Notes-1</b>
<b>References</b>	<b>Ref-1</b>
<b>Boxes</b>	
1 The Arizona Framework for Measuring Educator Effectiveness	2
2 Methodology	3
3 Proposition 301: Performance pay for teachers in Arizona	7
C1 The Stronge Teacher Effectiveness Performance Evaluation System	C-7
<b>Tables</b>	
1 Decisions reportedly based on teacher evaluation data, by district	6
A1 Roles of interview subjects, by district	A-1
A2 Survey response rates across the study districts	A-2

B1	Code book for interview transcripts	B-3
C1	District A principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent)	C3
C2	District B principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent)	C-7
C3	District C principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent)	C-12
C4	District D teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent)	C-16
C5	District E principals' and teachers' agreement with statements based on their experiences with the district's teacher evaluation process (percent)	C-19

## Why this study?

States and districts across the country are adopting new strategies to evaluate teacher effectiveness. Because effective teaching is consistently linked to improved learning outcomes for students, states are eager to see districts implement systems in a timely manner that provide schools with research-supported tools and methods for evaluating their staff (Darling-Hammond, 2010; Rivkin, Hanushek, & Kain, 2005; Watson, Kraemer, & Thorn, 2009). In some states, evaluation data provide feedback that teachers can use formatively to improve their instruction. The data may also be used for higher stakes purposes, such as decisions about contract renewal (Jerald, 2012).

Many state regulations of teacher evaluation are based on the premise that instructional feedback and support to teachers will become more targeted and relevant once districts implement new multiple-measure evaluation systems. Early results from a 2012/13 initial implementation of the Arizona Department of Education's model evaluation system have been promising. The department developed its own teacher evaluation model aligned with state requirements, which districts can adopt, that includes observations of instructional practice in classrooms using the Danielson Framework for Teaching; online surveys of students, parents, and peer teachers; and measures of student academic progress, defined by state-created rating tables based on teaching assignment (Arizona Department of Education, 2013). Participating teachers in the four 2012/13 pilot districts, two of which also participated in the current study, reported that post-observation conferences provided them with meaningful feedback on how to improve their instruction and that they were more reflective about their instructional practice and professional growth in 2012/13 than in previous years (Ruffini, Makkonen, Tejwani, & Diaz, 2014).

However, little is known about the next steps that these teachers took to improve their practice through professional development. Simply administering measures and making results available do not ensure that evaluation data will be used in professional development decisions (Marsh, 2012). Even states that provide substantial direction to district officials about how to collect and use evaluation data are finding that local practices vary widely (National Council on Teacher Quality, 2011). Traditionally, principals have best promoted their teachers' development by playing a facilitative role (Crum & Sherman, 2008; Seashore Louis, Leithwood, Wahlstrom, & Anderson, 2010) through, for example, providing actionable feedback to teachers (Hattie, 2009), developing communities of practice where teachers can collaborate (Wahlstrom & Louis, 2008), or creating professional development systems in which teachers have the opportunity to routinely develop and refine their skills (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010). States and districts are today seeking guidance about how the data from expanded evaluations will be beneficial to educators and students (Doherty & Jacobs, 2013).

A collaboration between Regional Educational Laboratory West's Educator Effectiveness Alliance and the Arizona Department of Education, this study aims to help state officials understand how the districts use teacher evaluation data to guide teachers' professional development and influence decisions about teachers' compensation, assignment to classrooms or schools, and remediation and retention. The study follows previous research on the initial implementation of teacher evaluation systems aligned with the statewide Arizona Framework (Ruffini et al., 2014), which examined practitioners' perceptions of the new measures and processes rather than the use of evaluation data.

**This study aims to help state officials understand how the districts use teacher evaluation data to guide teachers' professional development and influence decisions about teachers' compensation, assignment to classrooms or schools, and remediation and retention**

## What the study examined

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This report describes how data from teacher evaluations are used in five Arizona school districts and summarizes common findings across the study districts. Each district administered its own teacher evaluation system developed to align with state evaluation regulations passed in 2011 (the Arizona Framework for Measuring Educator Effectiveness; box 1).

The study addressed two questions related to the five sample school districts:

- How were data from the teacher evaluation process shared and used by district administrators, principals, and teachers?
- What were the similarities among the study districts in their use of teacher evaluation data?

See box 2 for a summary of the study methodology and appendix A for more details.

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### Box 1. The Arizona Framework for Measuring Educator Effectiveness

In 2010 Arizona Senate Bill 1040 mandated that local education agencies annually evaluate teachers and use the data to improve teaching and learning for all students. Subsequently, in April 2011 the Arizona State Board of Education approved the Arizona Framework for Measuring Educator Effectiveness (Arizona State Board of Education, 2013), guidelines requiring that teacher evaluations include data from measures of teaching performance (for 50–67 percent of each teacher’s final performance classification) and of student academic progress (at the classroom level and, optionally, at the school level, for 33–50 percent).

Some Arizona teachers (known as group A teachers in the 2011 Arizona Framework) have access to classroom-level student achievement data from measures that are valid and reliable, aligned to state academic standards, and appropriate for the content area (for example, a standardized state assessment); other teachers (known as group B teachers in the 2011 Arizona Framework) do not have access to comparable classroom-level data (Arizona State Board of Education, 2013).

Within the two component areas—teaching performance and student academic progress—the Arizona Framework affords local flexibility, allowing districts to identify their own measures and combine and weight them using strategies that best fit their culture and context. In summer 2011 school districts and charter schools in Arizona began designing and implementing their own Arizona Framework-aligned teacher evaluation systems. As noted, the Arizona Department of Education also developed and piloted its own Arizona Framework-aligned model that districts could adopt (see <http://www.azed.gov/teacherprincipal-evaluation/>).

The Arizona Framework recommends that the teacher evaluation process, and the data from it, be used “to drive professional development to enhance teaching” as well as to “create a culture where data drives instructional decisions” (Arizona State Board of Education, 2013, p. i).

Evaluation data also are intended to have professional consequences, in that districts must use evaluation data to classify teachers into one of four overall performance classifications (highly effective, effective, developing, or ineffective). State law (Arizona Revised Statutes §15–537) requires districts to provide incentives for highly effective teachers, while teachers rated ineffective for two consecutive years “shall not be transferred as a teacher to another school” and must complete “a professional development program focused on the areas in which the teacher needs to improve.” Moreover, teachers beginning their fourth year of employment who are designated as ineffective may be offered noncontinuing status contracts.

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## **Box 2. Methodology**

The Arizona Department of Education adopted a purposeful stratified sampling approach to invite districts to participate in the study in October 2014, initially targeting 17 districts that varied in enrollment size, student demographics, standardized test performance, and teacher effectiveness measures implemented. Among the 17 districts invited, districts A–E volunteered to participate. Districts C and D had collaborated with the Arizona Department of Education to pilot its state model teacher evaluation process in the 2012/13 and 2013/14 school years.

The 2013/14 enrollment in the five districts ranged from fewer than 1,000 to more than 25,000 students, and the percentage of racial/ethnic minority students ranged from 33 percent to 91 percent. Under the state's A–F letter grade accountability system, based on spring 2014 standardized test scores, two of the districts were awarded the letter grade A, two the letter grade B, and one the letter grade C. During the study period each district administered its own teacher evaluation system aligned with the Arizona Framework for Measuring Educator Effectiveness.

The study team analyzed data from structured interviews with 19 district officials and instructional coaches, as well as from online surveys from 47 principals (76 percent response rate) and 971 teachers (35 percent response rate), conducted by West Comprehensive Center on behalf of the Arizona Department of Education, between January 2015 and May 2015 (see table A1 in appendix A for the number and role of the officials interviewed in each district, table A2 in appendix A for survey counts and response rates by district, and appendix B for the interview protocol).

Given the local variations in system design and implementation, the study team treated each district as an independent case and produced five district case summaries (see appendix C). This report summarizes common findings across the districts. Cross-case themes were included as findings if the theme was raised in three or more of the study districts.

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Arizona officials can use the results of this study to guide decisions about what types of guidance and support the state might provide to districts. Common practices that are perceived as beneficial by several participating districts may also be of interest to other districts striving to implement similar evaluation reforms.

### **What the study found**

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This section summarizes common experiences, practices, and perceptions related to the use of teacher evaluation data reported by three or more of the study districts.

**Teachers and principals know what data are being collected as part of teacher evaluations and interact multiple times during the year to review and discuss standards-based observation data**

Every responding principal and at least 73 percent of responding teachers in each district reported knowing what types of information are collected during the teacher evaluation process. In addition, at least 58 percent of responding teachers in four districts (all except district C) reported knowing how the collected data would be used by school administrators.

As part of teacher evaluations all five districts rely on standards-based observation frameworks, which are carried out through multiple formal and informal observations over the

*Every responding principal and at least 73 percent of responding teachers in each district reported knowing what types of information are collected during the teacher evaluation process*

course of the year. District officials in all five districts also reported that their observation frameworks provide a common language for teachers, instructional coaches, and principals to discuss instructional practice.

According to district officials from all five districts, at a minimum, principals have formal meetings with teachers at the beginning and end of the school year to review evaluation data and discuss professional goals. While instructional coaches do not formally contribute to evaluations in any district, they observe teachers and review student benchmark assessment data with them, offering feedback that may be used formatively over the course of the year.

Finally, officials from all five districts emphasized the importance of monitoring inter-rater reliability and reported that their principals are trained to understand the observation rubric and are expected to rate teaching practices consistently across observations.

#### **Online systems facilitate timely observation-based feedback**

District officials cited benefits from having an online system, either developed by the district or supported by a vendor, that is aligned with their observational framework and used to collect and share observation data with teachers. School administrators or coaches can enter data and notes into such systems during or after formal or informal observations, and teachers can immediately access and review data and enter comments of their own. According to district officials in the four districts with online data systems (A, B, D, and E), such systems afford teachers timely access to feedback and promote transparency and common understanding when teachers meet face-to-face with their evaluators and coaches.

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#### **Evaluation data influence subsequent professional development**

School and district officials in all five districts reported that teacher evaluation data influence the professional development opportunities that are subsequently offered to teachers. Officials attributed this connection to their history with their standards-based instructional framework and observational rubric. For districts A, C, and D this was the Danielson Framework for Teaching, for district B it was the Stronge Teacher Effectiveness Performance Evaluation System, and for district E it was the Marzano Teacher Evaluation Model. In each district these tools are used to define effective teaching across multiple domains and to identify teachers' strengths and weaknesses. For example, the district D superintendent explained that after reviewing teachers' effectiveness in particular areas, the district identified domain 2 (classroom environment) of the Danielson Framework for Teaching as an overarching area of need—one that emerged as a challenge for many teachers—and dedicated districtwide trainings toward improving performance in that area.

Teacher survey data reinforced a connection between evaluation and professional development. More than half the responding teachers in three districts (A, D, and E) agreed that they engage in professional development opportunities that are linked directly to the needs identified in their evaluations, and more than half the responding teachers in four districts (all except district C) agreed that the next steps they need to take for their professional growth were clear to them after their evaluations.

District officials in the four districts with online data systems (A, B, D, and E) said that their system provides suggested resources or support opportunities (such as books, webinars, and online videos) linked to particular domains or components within the observational framework. Officials in all five districts also emphasized that instructional coaches play a key role in guiding teachers' professional growth by working with teachers (either individually or in teams) to help them improve their practices (based partly on prior evaluation data from principals). This support takes various forms, such as helping teachers develop their professional growth plans or analyze their students' benchmark assessment data or conducting informal follow-up observations to track progress and offer feedback. In addition, in districts B and D instructional coaches help principals design their schoolwide professional development plans.

**Student test data are incorporated into teachers' final performance classifications in multiple ways, but observation data are perceived as more useful for professional development decisions because they are collected over repeated occasions and made available during the school year**

Districts incorporate student test data into teacher evaluations in various ways. For example, districts A and B apply a value-added model<sup>1</sup> to statewide student test data and share the resulting teacher scores with principals during the summer; the principals in turn discuss the scores with teachers in the fall. Both districts have safeguards to shield teachers from invalid inferences due to unreliability or scoring error.<sup>2</sup> In districts C and D, which have adopted the Arizona Department of Education's model, evaluators rely on state rating tables (each with its own student data combinations and formulas) that are specific to particular teaching assignments. The tables require teachers to develop student learning objectives (test growth targets for their students) that are evaluated by their administrators at the end of the year or in the summer. District E bases the student academic progress portion of teachers' performance classifications on the aggregate academic growth of students across their entire school.

*Two districts apply a value-added model to statewide student test data and share the resulting teacher scores with principals during the summer; the principals in turn discuss the scores with teachers in the fall*

These processes are all aligned with requirements of the Arizona Framework for Measuring Educator Effectiveness and allow the districts to incorporate a measure of student academic progress into teachers' final performance classifications. However, the summative nature of the results (which are usually conveyed as a single score) can limit their formative value in shaping teachers' professional development. When results are based on statewide exams, the data are not released until summer and thus are not reviewed with teachers until the beginning of the next school year—which is also reportedly problematic. In contrast, data from formal and informal observations can be tracked and shared online and discussed at various points during the school year.

Officials in all five districts emphasized that teachers are expected to review and respond to their students' benchmark assessment data over the course of the year—on their own, with instructional coaches, or with peer teachers (table 1). Although such efforts may help student test data shape teacher practice in the study districts, the utility of teachers' summative scores from students' statewide test data remains somewhat unclear to district officials.

**Teachers view themselves as responsible for their own professional growth and are somewhat skeptical of school and district professional development**

District officials in all five study districts said that teachers who are not on a remediation plan<sup>3</sup> have some autonomy in setting their professional learning goals, although they tend

**Table 1. Decisions reportedly based on teacher evaluation data, by district**

Decision	District A	District B	District C	District D	District E
Influences on professional development for teachers					
Observation data during year	✓	✓	✓	✓	✓
Benchmark student assessment data during year	✓	✓	✓	✓	✓
Final teacher score derived from student test data					
Talent management decisions					
Identifying teacher leaders		✓		✓	
Assigning teachers to schools					
Assigning teachers to classrooms			✓	✓	
Designating teachers for remediation	✓	✓	✓	✓	✓
Allocating state performance pay to teachers	✓	✓	✓	✓	

**Note:** A check mark indicates that two or more sources within the district (central office administrators, a majority of responding principals, or a majority of responding teachers) reported that individual teacher evaluation data are used as a basis for the decisions listed. Additional details on districts' evaluation data-based decision processes are in appendix C.

**Source:** Authors' analysis of data from interviews with central office administrators and from surveys of principals and teachers provided by the Arizona Department of Education, 2015.

*In only two districts did a majority of teachers agree that their supervising administrator uses evaluation data to guide their professional growth in a helpful way*

to collaborate with principals and instructional coaches. The particulars may vary, but at least 60 percent of responding principals in four districts (A, B, D, and E) reported that they directly oversee the professional development of the teachers they evaluate. In all five districts fewer than 35 percent of responding principals agreed that teachers are responsible for designing their own professional development.

Teachers' perspective on responsibility for determining professional development differed from that of principals. At least 57 percent of responding teachers in all five districts reported that they are primarily responsible for using their evaluation data to guide their own professional development. In only two districts did a majority of teachers agree that their supervising administrator uses evaluation data to guide their professional growth in a helpful way (51 percent in district A and 53 percent in district E).

Surveys also suggested that teachers questioned the relevance of school and district professional development offerings. In all five districts fewer than 50 percent of responding teachers agreed that administrators use evaluation data to determine the professional development offerings at their schools or that their district effectively links professional development offerings with the needs identified in teacher evaluations. In contrast, a majority of the responding principals in four districts (A, B, C, and D) reported that they plan their school's professional development based on teacher evaluation data. According to the district officials interviewed, teachers tend not to be involved in planning professional development at the school or district level.

**Evaluation data are not systematically used to identify teacher leaders or to assign teachers to schools or classrooms, but such data serve as the basis for decisions on remediation and allocation of state performance pay funds**

Districts A, C, and E do not have a formal process for using teacher evaluation data to identify teacher leaders (see table 1). However, district B uses evaluation data to identify

qualified teachers to lead professional learning communities or professional development opportunities at their school and at other schools in the district. In district D the superintendent reviews evaluation data when choosing an instructional coach from the available teacher applicants.

Although the interviewed officials in all districts maintained that they examine the distribution of their teachers across performance classifications—noting, for example, the proportion of teaching staff rated effective or above—they rarely use the data to assign teachers to particular schools. This finding was confirmed by responding teachers and principals in most districts. At the same time, 80 percent of responding principals in district C agreed that they use teacher evaluation data to assign teachers to particular classrooms, subjects, or grade levels within their schools, and the district D principal explained that he relies on evaluation data to create effective grade-level teams. Surveys from the other study districts (A, B, and E) indicated that within-school assignments are not consistently based on evaluation data; rather they are made informally by school leaders.

District officials and a majority of responding principals in all five study districts maintained that evaluation data are used to identify teachers for remediation (and subsequent improvement planning). Individual teachers' evaluation data also influence the allocation of state performance pay funds, which is mandated by Arizona's Proposition 301 (box 3): teachers with higher performance classifications receive additional funds in every district except district E, where Proposition 301 funds go to schools that meet benchmarks selected by the district's teachers.

*Officials in all districts maintained that although they examine the distribution of their teachers across performance classifications, they rarely use the data to assign teachers to particular schools*

#### **Teachers were more skeptical than administrators about the benefits of their new evaluations**

The new teacher evaluation process has improved teachers' instructional practice, according to responding principals in districts A (53 percent), B (70 percent), and D (where the principal was interviewed rather than surveyed) and responding teachers in districts A (52 percent), D (58 percent), and E (60 percent).

However, in all five districts only 13–46 percent of responding teachers agreed that the new evaluation process has benefitted students. In contrast, most responding principals in four districts (A, 65 percent; B, 78 percent; D, 60 percent; and E, 60 percent) agreed that

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#### **Box 3. Proposition 301: Performance pay for teachers in Arizona**

In November 2000 Arizona voters passed Proposition 301, which increased the state's sales tax from 5 percent to 5.6 percent to provide additional funds for education programs. Districts receive funds on a per pupil basis, and 40 percent of funds must be used for performance pay for teachers through locally established distribution details. Districts in turn developed performance pay plans with input from board members, administrators, teachers, principals, and parents. In 2012 Arizona House Bill 2823 amended state law to require that, beginning in the 2014/15 school year, teachers' performance classifications (determined by Arizona Framework for Measuring Educator Effectiveness parameters) "shall account for thirty-three per cent of the forty per cent allocation" for performance pay (Arizona Revised Statutes §15–977). For details about the local distribution of Proposition 301 funds, see <http://www.aztreasury.gov/local-govt/revenue-distributions/prop-301/>.

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students have benefitted from the new evaluations. District officials—who designed and lead the systems—also offered positive views of student benefits. They emphasized that teachers are helped by more specific, standards-based feedback about their practice from principals and coaches, delivered more often during the year, and that students benefit from their teachers' continuous review of their own practice as well as from teachers' structured review of benchmark assessment data with coaches or their fellow teachers. (Reviewing student assessment data is a key component of each study district's observational framework.)

At the same time, district officials acknowledged some anxiety among teachers about the new evaluation process, particularly related to the use of student test scores and student and parent surveys, which teachers suspect may be unreliable and unduly influenced by factors beyond their control.<sup>4</sup>

### Implications of the study findings

The study districts emphasize the review of data during the school year and have built organizational structures to support such work—for example, standards-based observation frameworks, benchmark assessments, professional learning communities, and instructional coaching and feedback. Although some structures were established independent of the state's teacher evaluation regulations, they seem to support the regulations' goal of creating a culture where data drive instructional decisions.

After multiple years implementing standards-based observation frameworks and rubrics, district officials emphasized the importance of having common definitions and expectations around effective teaching. Other districts seeking to increase the benefits of evaluation and create conditions for meaningful conversations about practice might consider working toward common definitions with language that can be used consistently by teachers, coaches, and principals, supported by menus of professional development opportunities specifically aligned with those definitions.

Such shifts imply a potential new role for principals, who have traditionally allowed teachers autonomy over their classrooms. The new evaluation systems require principals to objectively rate teachers against standards, give them specific feedback (to be incorporated alongside feedback from instructional coaches), and use the data to make strategic decisions.

Principals tended to perceive their district's new evaluations favorably, but teachers were more skeptical. While many teachers see a link between their evaluations and their professional development, they tend to feel independently responsible to seek out professional development opportunities that appropriately address the issues identified in their evaluations. This suggests that it may be worthwhile for school and district officials to target school-based professional development more closely to teachers' needs identified through the evaluation system, provide additional support for teachers to find appropriate outside professional development, and consistently communicate their vision of the role that evaluations can play in improving collaboration, feedback, and support within schools.

Some issues raised in this study might be examined in more depth in future research. For example, researchers might seek to gain a more representative view of, or delve more deeply

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into, teachers' perspectives on evaluation. Alternatively, a sample of evaluated teachers could be followed over time to track the specific steps they take to improve their practice. Another study might assess principals' preparation to support and guide teachers' professional development. Arizona education leaders might also be interested in more broadly surveying the local practices used across the state to evaluate the contributions of teachers to their students' academic progress.

### **Limitations of the study**

This study was limited by the selection of districts and interview participants and by survey response rates. Since districts (and principals and teachers within districts) volunteered to participate rather than being randomly selected, the results cannot be generalized beyond the participating districts. The survey response rate among principals was adequate, but the response rate among teachers was low overall (35 percent) and uneven across districts (below 50 percent in districts A, B, and E; see table A2 in appendix A for details). Teacher responses may not reflect the perceptions of the majority of teachers and may be biased; responses should thus be taken as no more than suggestive. Results might have differed had other teachers in the study districts or teachers from other districts responded. Moreover, given the self-reported nature of the study data, findings may be limited by respondents' inaccurate recall or reluctance to address difficult or sensitive topics.

The study did not attempt to characterize the fidelity or quality of the implementation of local teacher evaluations in relation to the requirements of the Arizona Framework for Measuring Educator Effectiveness or factors known to influence implementation fidelity.

## **Appendix A. Data sources and methodology**

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To address the research questions, the study team analyzed interview transcripts and survey data compiled by the West Comprehensive Center on behalf of the Arizona Department of Education. Regional Educational Laboratory (REL) West did not directly collect any data for this study. This appendix describes the study's data sources and general methods.

### **Interview transcripts**

**Data collection.** The Arizona Department of Education adopted a purposeful stratified sampling approach to invite districts to participate in the study in October 2014, initially targeting 17 districts that varied in enrollment size, student demographics, standardized test performance, and teacher effectiveness measures implemented. Among the 17 districts invited, districts A–E volunteered to participate. The department then asked the superintendents of each district to nominate district officials for interviews who were most knowledgeable about the procedural steps and systems involved with collecting, storing, sharing, and using the data from the local teacher evaluation process. Between January 2015 and May 2015 teams of two trained field researchers from West Comprehensive Center visited each study district to conduct semistructured interviews with the district officials on behalf of the Arizona Department of Education, using an established interview protocol developed collaboratively by the department and REL West (see appendix B). One field researcher facilitated the interview, and the other recorded the responses. The interviews were recorded and transcribed. Follow-up phone interviews were conducted with district officials who were unavailable during the site visit. Nineteen district officials were interviewed (table A1).

**Analysis.** While reviewing one interview transcript using an initial coding scheme derived from the interview protocol (see appendix B), a study team member inductively developed additional codes to capture pertinent details of the data use process (Miles, Huberman, & Saldana, 2014). That study team member then coached a second study team member

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**Table A1. Roles of interview subjects, by district (*n* = 19)**

District	Role of interview subject
A	<ul style="list-style-type: none"><li>• Director of Human Resources</li><li>• Director of Research and Accountability</li><li>• Professional Development Coordinator</li></ul>
B	<ul style="list-style-type: none"><li>• Superintendent</li><li>• Director of Research and Assessment</li><li>• Educational Services/Teacher Training Administrator</li></ul>
C	<ul style="list-style-type: none"><li>• Superintendent</li><li>• Director of Assessment and Data</li><li>• Academic Coach (2)</li></ul>
D	<ul style="list-style-type: none"><li>• Superintendent</li><li>• Principal</li><li>• Data Specialist (2)</li></ul>
E	<ul style="list-style-type: none"><li>• Associate Superintendent for School Improvement</li><li>• Executive Director of Human Resources</li><li>• Associate Superintendent for Curriculum and Instruction</li><li>• Instructional Coach (2)</li></ul>

**Source:** Authors' compilation.

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on the coding scheme, and together they reviewed the first coded transcript, establishing decision rules and basic examples for each code. Next, the two study team members independently coded a second transcript. A third study team member not involved in the initial coding discussions then assessed inter-rater reliability by dividing the coded transcript into 15 sections of text, comparing the first two researchers' codes to calculate inter-rater reliability within each section (with reliability defined as the number of codes in agreement divided by the total number of codes assigned), and then averaging the within-section reliability across all 15 sections. Overall rater reliability was .71. The three study team members then met to review the three transcript sections where reliability was below .50. (The main discrepant codes fell within the Actor and Influence code groups, described in appendix B.) They reviewed the discrepant codes in these three sections and agreed on a set of consensus codes for the section. Some coding language was modified based on this discussion. The study team's coding was then considered calibrated, and the first two study team members separately analyzed and coded the remaining interview transcripts using the final coding scheme (see appendix B).

#### **Online surveys of teachers and principals**

**Data collection.** The Arizona Department of Education (in collaboration with West Comprehensive Center and REL West) developed online end-of-year surveys to gather data on principals' and teachers' perceptions and experiences with their district's new evaluation systems. Surveys included sets of closed-ended questions with Likert-style response scales (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree) to explore the degree to which respondents agreed with particular statements about how evaluation data were used locally (with response categories later collapsed for analysis; see tables C1–C5). Introductory text and links to the surveys were provided to research officials in each study district in May 2015 for distribution to 62 principals and 2,791 teachers. Response rates varied by district, but the overall response rate for principals was 76 percent, and the overall response rate for teachers was 35 percent (table A2).

**Analysis.** Analysis of the teacher and principal survey data supplemented the interview analysis, triangulating the qualitative information—in-depth, contextually based information on the local uses of teacher evaluation data—with survey information from a larger sample of individuals working at different levels in the school system. The quantitative

**Table A2. Survey response rates across the study districts**

District	Principals			Teachers		
	Number of surveys distributed	Number of respondents	Response rate (percent)	Number of surveys distributed	Number of respondents	Response rate (percent)
A	23	17	74	1,309	510	39
B	12	10	83	656	130	20
C	10	5	50	325	183	56
D	na	na	na	41	26	63
E	17	15	88	460	122	27
Total	62	47	76	2,791	971	35

na is not applicable because the principal in district D was interviewed rather than surveyed.

**Source:** Authors' analysis of data provided by the Arizona Department of Education, 2015.

survey results thus complement the qualitative results. For the survey item analysis the study team generated and tabulated the response frequencies for each survey item for each participating district.

To further explore the teacher survey results, the study team also examined whether, for each district, responding high school teachers or responding teachers with more experience—in particular, those at their current school for 5 years or more as well as those with more than 10 years of overall teaching experience—perceived these issues differently, that is, whether a significantly ( $p < .05$ ) larger or smaller proportion agreed with each survey item. Any such differences are noted in the case summaries in appendix C.

#### **Deriving case summaries and findings**

The two study team members who coded the interviews organized the transcript data by codes (see appendix B), which enabled them to identify patterns and themes for the case summaries (complemented by the survey data), which in turn allowed the tracking of common themes across districts. The full study team relied on themes prevalent within districts (themes raised by district administrators were compared with the relevant survey results from principals or teachers) and then across districts. Cross-case themes were drawn from the case summaries and included as study findings if the theme was raised (and substantiated) in three or more of the districts. As noted, each district was treated as an independent case because of the local variations in system design and implementation.

## **Appendix B. Protocol and code book for district interviews**

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This appendix presents the interview protocol used to gather data from district officials, as well as the code book used to analyze and summarize the data from the interview transcripts (table B1).

### **Interview questions for district officials**

#### **Background**

1. I'd first like to get an idea of your background:
  - a. What is your current role in this district?  
*Probe:* Inquire about job title and specific responsibilities.
  - b. How long have you worked in this position?
  - c. What previous positions have you held in this district and elsewhere?
  - d. In what ways are you involved with the district's teacher evaluation process?  
*Probe:* Inquire about specific responsibilities, particularly related to results data.

#### **Uses of teacher evaluation data**

Next I'd like to learn more about how your district collects, stores, shares, and makes use of the results from teacher evaluations.

2. We understand that your district uses multiple measures to evaluate teacher effectiveness. How are results from the different measures (that is, each of the different teacher ratings or scores) collected and stored? What specific steps are involved?

*Probe:* For example, are teachers' observation ratings written on paper forms? Entered into a spreadsheet? Entered into an online database? Is any video reviewed? If so, how is it rated or evaluated? Who enters the data, the teacher's supervising administrator?

3. Once the teacher evaluation data are collected, who is allowed to access the results? How are results of teacher evaluation data collection shared? With whom?

*Probe:* Do principals have access to a central data system that allows them to analyze teacher effectiveness data? How do they use it?

4. What guidance does the district provide to principals (if any) about how to use teacher effectiveness data/scores to make decisions related to teacher hiring, assignment, professional development, or contract renewal or dismissal?

5. To what extent, and in what ways, are a teacher's evaluation results used to promote his or her professional growth? How does this process work?

- a. Do principals recommend or require specific next steps for teachers? If so, can you provide some examples? How do they decide what to require?
- b. If teachers are responsible for their own professional growth, what kinds of activities do they engage in to grow? How do they decide what to do?

- c. What specific professional development (PD) options are available to teachers?  
*Probe:* How much of the PD offerings are provided in-person? Online? How do principals deploy master or peer teachers, department heads, or instructional leadership team members to coach, mentor, and model best practices for teachers? How does this work, specifically?
- d. To what extent are PD resources or support activities directly aligned with the specific indicators on the district's instructional framework or observation rubric?
- e. To what extent do principals track teachers' participation in PD opportunities? How does this happen?

6. Are evaluation results used to identify potential teacher leaders and/or grant highly effective teachers additional leadership responsibilities, for example, as mentors or peer coaches?

*Probe:* If YES, how does this process work? If NO, why not?

7. Are evaluation results used to assign teachers to particular schools or classrooms? For example, are highly effective teachers assigned to teach students most in need of effective instruction?

*Probe:* If YES, how does this process work? If NO, why not?

- 8. How are evaluation results used to determine improvement plans for teachers identified as needing remediation?
- 9. How might a teacher's evaluation results influence the decision to retain (or offer tenure to) that teacher?
- 10. To what extent is teacher compensation linked to evaluation results? How does this work? How has this been received?
- 11. From your perspective, what results from certain measures are more useful than others...
  - a. For teachers?
  - b. For school and/or district administrators?
- 12. From your perspective, how has your district's new teacher evaluation process led to changes in instructional practices? How have these changes affected learning outcomes for students in your district?
  - a. What unique contextual factors or conditions have enabled effective data use in your district? Has this been helpful? Why or why not?
  - b. Alternatively, what factors or conditions constrained your district from using evaluation data in beneficial ways? Can you elaborate?
- 13. From your perspective, how has the district's new teacher evaluation process influenced the professional environment or climate in your district's schools?

*Probe:* For example, do professionals across the school (or district) now think and talk differently about instruction? Are any longstanding norms, values, or procedures changing?

## *Final thoughts*

14. Are teacher evaluation results being used in your district in other ways we haven't discussed?

*Probe:* For example, perhaps to evaluate the effectiveness of certain trainings or PD programs?

15. Are there any district reports or system documents that you can share with us that describe how your district is using evaluation data to improve teaching?

16. Do you have any other final thoughts or comments that you would like to share? Was there anything else I should have asked about?

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**Table B1. Code book for interview transcripts**

<b>Code</b>	<b>Description</b>
Actor: Role group using evaluation data	
District administrator	All central office staff
School administrator	Principals and assistant principals
Teacher	All current classroom teachers
Types of data collected, stored, or used for decisionmaking	
Evaluation reports	Reports that contain multiple forms of evaluation data collected, stored, or used
Summative ranking	Teachers' final performance classification (that is, highly effective, effective, developing, or ineffective)
Observation data	Data on teachers' practice collected via an instructional rubric
Student achievement data	Student academic progress data, including raw student achievement data as well as value-added measures or student learning objectives
Teacher evaluation rubrics	Research-based instructional rubrics that define high-quality instruction in different domains (that is, classroom environment or assessment) and are used to make decisions on professional development offerings for teachers
Other	Other types of data that may or may not be included in the teacher evaluation process, including student demographic data, surveys from students or teachers, or teachers peer assessments
Data collection process	
Collect and store	Describing the collection or storage process for evaluation data
Create measures	Measures or scores created from raw observation or student achievement data
Sharing	Describing the act of sharing the data with principals, teachers, or other district staff
Access data	Noting that certain actors may have direct access to data while others may not
Enter data	Referencing the entry of different data elements into specific databases
Compile data	Creating value-added measures or disaggregating data (in graphs or reports) to make them available for use; usually done by a central office research or assessment official
Training: Data collection	Training provided to various actors on how to collect and store evaluation data for later use
Training: Data use	Training provided to administrators on how to understand and use the different types of evaluation data in decisionmaking
Format: District created database	Database created specifically to collect and store evaluation data
Format: Existing database	Existing database used to collect and store evaluation data
Format: Other	Data stored in other (nondatabase) formats

(continued)

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**Table B1. Code book for interview transcripts (continued)**

Code	Description
Data use for professional development	
Plan created: District	Districtwide professional development opportunities created by central office administrators based on teachers' instructional needs
Plan created: Whole school	Schoolwide professional development plans or schoolwide areas of focus created based on teachers' instructional needs
Plan created: Individual	Individual professional development plan for teachers based on teachers' areas of need; different from a support plan designed to remediate teachers at risk based on their ineffective rankings
Delivery format	The various professional development options or formats from which principals, coaches, and teachers can choose
Oversight: Creation of plan	An actor's responsibility to use evaluation data to create a professional development plan
Oversight: Execution of plan	An actor's responsibility to monitor the execution of a professional development plan
Data use for talent management	
Assignment	Actor uses evaluation data to assign teachers to specific grade levels, classrooms, or schools based on evaluation data
Retention	Actor uses evaluation data to decide whether or not to retain teachers
Remediation	Actor uses evaluation data to place ineffective teachers on an improvement plan to improve their instructional practice
Compensation	Actor uses evaluation data to compensate teachers
Identification of teacher leaders	Actor uses evaluation data to identify teacher leaders or mentor teachers at the district or school level
Oversight	The actor responsible for making talent management decisions
Influences on data use and on the outcomes of data use	
Data reliability	Reference to actor not considering certain data as reliable or accurate and influencing the extent to which data are used
Resources or tools	The tools or resources that actors may consider and influence their data use
Support or capacity	Actor considering people's skill for using or understanding data (which may be supported by training) as influencing data use
Time	Any mention of time in regards to the use of evaluation data
Help	Factors in the evaluation system considered to support data use or outcomes
Hindrance	Factors in the evaluation system considered to hinder data use or outcomes
Perceived outcomes of data use	
Teaching quality	Reference to whether or how teachers improved their instructional practice based on the use of evaluation data for professional development
Culture or climate	Reference to whether or how the culture or climate surrounding data use within the district or its schools may have shifted due to the new evaluation system

**Source:** Authors' compilation.

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## **Appendix C. Case summaries**

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This appendix presents case summaries for the five study districts. Each case summary describes the local processes for collecting, accessing, sharing, and using teacher evaluation data, discusses key implications, and concludes with a summary table of principal and teacher survey results from the district.

### **District A**

District A was the largest study district, enrolling more than 25,000 students in 2013/14 (more than 50 percent of whom were a racial/ethnic minority) and received a letter grade of A from the state.

**Survey and interview sample.** Information was collected from a structured group interview with the district's director of human resources, director of research and accountability, and professional development coordinator (see table A1 in appendix A), as well as from surveys of 17 of the district's 23 principals (74 percent response rate) and of 510 of its 1,309 teachers (39 percent response rate; see table A2 in appendix A).

Eleven responding principals led an elementary or grade K–8 school, five led a high school, and one led a grade K–12 school. Although respondents had a range of overall experience as principals, 47 percent had been at their current school for two years or less.

Of the 510 responding teachers, 37 percent reported teaching primarily in an elementary school, 16 percent reported teaching primarily in a grade K–8 school, 15 percent reported teaching primarily in a middle school, and 31 percent reported teaching primarily in a high school. These proportions generally align with the district A teacher population, of which 72 percent teach in a grade K–8 school and 28 percent teach in a high school, according to administrative data obtained from the district.

Responding teachers were generally experienced teachers: 58 percent reported having more than 10 years of experience, 27 percent reported having 5–10 years of experience, and 14 percent reported having fewer than 5 years of experience. Experience among the district's full teacher population was more balanced: 42 percent had more than 10 years of experience, 33 percent had 5–10 years of experience, and 25 percent had fewer than 5 years of experience, according to district data. In surveys the perceptions of district A teachers with more than 10 years of experience did not differ significantly from the perceptions of teachers with less experience on any question. Responding teachers had also been at their current school for varying amounts of time: 38 percent reported having been at their current school for 2 years or less, 17 percent reported having been at their current school for 3–4 years, 31 percent reported having been at their current school for 5–10 years, and 13 percent reported having been at their current school for more than 10 years.

Responding teachers also reported working in a variety of areas: elementary grades (34 percent), math (13 percent), special education (12 percent), reading/language arts (11 percent), social studies (7 percent), science (5 percent), career and technical education (5 percent), the arts (4 percent), physical education (4 percent), and various other assignments (5 percent).

**Collecting, accessing, and sharing teacher evaluation data.** District A evaluates teachers using data collected from classroom observations of teachers and from students' statewide standardized test scores, applying an evaluation framework designed for use in 2012/13 (to align with the Arizona Framework for Measuring Educator Effectiveness) by a committee of teachers, principals, and district curriculum and instruction specialists and research staff. Principals and teachers have access to teachers' observation and student growth data and final performance classifications through an internal online data system created and maintained by the district's research and accountability department. The system aggregates teachers' observation and value-added scores to create final performance classifications and reports.

Over the school year teachers are observed multiple times by their supervising administrator (using the Danielson Framework for Teaching, which includes four domains—planning and preparation, classroom environment, instruction, and professional responsibilities—each with five to six subcomponents), who enters data into the district database. According to district officials, all principals and assistant principals have been trained and certified to collect observation data and score observations consistently and accurately.

The system emails teachers the data from their most recent observation, and they can view the data online. Each teacher also has a student academic progress score, which is calculated during the summer through a value-added model using data from statewide standardized tests in reading, math, and science (for teachers in grades or content areas that are subject to statewide testing) or based on test results aggregated to the grade or school level (for teachers in grades or content areas that are not subject to statewide testing). Teachers receive their score as part of the evaluation report containing their final performance classification for the school year. These summative teacher reports can also be accessed online by district officials and school administrators.

Surveys indicate that the evaluation data collection process is clear to principals and teachers. All responding principals and 90 percent of responding teachers reported knowing what types of information are collected during teacher evaluations, and 73 percent of teachers reported knowing how evaluation data will be used by their administrators (table C1). This knowledge may relate to longevity at the school—79 percent of responding teachers who reported having been at their current school for five years or more reported knowing how the data will be used, compared with 68 percent of teachers who had been at their school for fewer than five years ( $p = .02$ ).

**Using teacher evaluation data to shape professional development.** Participating district and school administrators said teachers' evaluation data shape their individual professional development plans, while schoolwide and districtwide professional development plans are based on overarching areas of need across teachers and schools. The district provides professional development opportunities in multiple formats, such as face-to-face coaching or online videos, aligned with the definitions of high-quality instruction in the Danielson Framework for Teaching, in areas that site leaders at multiple schools have identified as needing improvement. School leaders seem to appreciate this connection more than teachers—53 percent of responding principals (but 24 percent of responding teachers) agreed that district A does a good job linking its professional development offerings with the needs identified through teachers' evaluations (see table C1).

**Table C1. District A principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent)**

Statement	Principals ( <i>n</i> = 17)			Statement	Teachers ( <i>n</i> = 510)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree		Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
I know what types of information are collected during the teacher evaluation process in my district.	100.0	0.0	0.0	I know what types of information are collected during the teacher evaluation process in my district.	90.2	4.3	5.5
I have access to a central data system that allows me to analyze my teachers' evaluation data/effectiveness scores.	100.0	0.0	0.0	I know how data collected during my evaluation will be used by school administrators.	72.7	13.9	13.4
After their evaluations, teachers at my school clearly understand the next steps they need to take for their professional growth.	88.2	11.8	0.0	After my evaluation, the next steps I need to take for my professional growth are clear to me.	69.8	15.8	14.4
The teachers I evaluate have the opportunity to engage in professional development opportunities directly linked to the needs identified in their evaluations.	94.1	0.0	5.9	I engage in professional development opportunities directly linked to the needs identified in my evaluation.	54.6	20.9	24.5
I directly oversee the professional development of the teachers I evaluate.	94.1	5.9	0.0	My supervising administrator uses evaluation results to guide my professional growth in a helpful way.	51.2	23.3	25.4
Teachers in my school are primarily responsible for overseeing their own professional development.	31.3	25.0	43.8	I'm primarily responsible for using evaluation results to guide my own professional development.	78.5	15.2	6.3
I use the data collected during teacher evaluations to determine the professional development offerings at my school.	94.1	5.9	0.0	Administrators use the data collected during teacher evaluations to determine the professional development offerings at my school.	29.5	32.1	38.4
From my perspective, the district does a good job linking its professional development offerings with the needs identified through teachers' evaluations.	52.9	17.7	29.4	From my perspective, the district does a good job linking its professional development offerings with the needs identified in teachers' evaluations.	24.4	31.5	44.2
In my district, teacher evaluation results are used to assign teachers to particular schools.	5.9	11.7	82.4	District administrators use teacher evaluation results to assign teachers to particular schools.	7.9	48.3	43.7
I use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	47.1	17.7	35.3	School administrators use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	21.1	44.6	34.3
Poor-performing teachers in my school are designated for remediation based on their evaluation results.	70.6	23.5	5.9	Poor-performing teachers in my district are designated for remediation based on their evaluation results.	38.6	38.4	23.0
My district provides me with adequate guidance about how to use teacher evaluation data/effectiveness scores to make decisions.	70.6	17.7	11.8	In my district, evaluation results are used to determine which teachers are retained.	32.6	39.7	27.7

(continued)

**Table C1. District A principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent) (continued)**

Statement	Principals ( <i>n</i> = 17)			Statement	Teachers ( <i>n</i> = 510)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree		Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
In my school, evaluation results are used to promote teachers.	5.9	29.4	64.7	In my district, evaluation results are used to promote teachers.	12.1	36.2	51.7
In my school, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	11.8	35.3	52.9	In my district, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	14.4	23.0	62.6
From my perspective, the district's new teacher evaluation process has improved teachers' instructional practice.	52.9	41.2	5.9	The teacher evaluation process used in my district has led me to improve my instructional practice.	51.6	21.7	26.7
From my perspective, the district's new teacher evaluation process has benefited students.	64.7	29.4	5.9	The teacher evaluation process used in my district has benefited my students.	43.7	26.3	30.0

**Note:** Percentages may not sum to 100 across rows because of rounding.

**Source:** Authors' analysis of data provided by the Arizona Department of Education, 2015.

Within schools, principals have the autonomy to set schoolwide professional development plans, which tend to be informed by evaluation data, delivered during the time set aside by the district for whole-school professional development, and selected from the district's menu of professional development options, district officials noted. In surveys, 94 percent of principals agreed that they use the data collected during teacher evaluations to determine the professional development offerings at their school. Here again, however, a smaller proportion of teachers (30 percent) agreed that this was the case (see table C1).

Teachers in district A have the authority to establish, in collaboration with their supervising administrator, their own professional development plans (except for teachers who receive a final performance classification of ineffective and in turn are provided with specific supports via a formal improvement plan). In formal preconferences at the beginning of the school year, principals and teachers review prior evaluation data to set learning goals for the year. Teachers can select the types of professional development activities they attend, based on their learning goals. Indeed, 79 percent of responding district A teachers reported that they were primarily responsible for using evaluation data to guide their own professional development.

Throughout the school year, teachers and their supervisor monitor and discuss their progress, ultimately evaluating accomplishments at a formal end-of-year conference (where they begin to set goals for the following year). In surveys, 88 percent of responding district A principals agreed that, after their evaluations, teachers at their school clearly understand the next steps they need to take for their professional growth. Teachers endorsed this sentiment as well, with 70 percent agreeing that the next steps they need to take for their professional growth are clear to them after their evaluations (see table C1).

**Using teacher evaluation data for talent management.** Although professional development opportunities appear to be well linked to the needs identified in teachers' evaluations

in district A, evidence suggests that use of these data to strategically assign teachers or to identify teacher leaders is informal and remains a work in progress. Forty-seven percent of responding principals agreed that they use evaluation data to assign teachers to particular classrooms, subjects, or grade levels within their school (35 percent disagreed). Evidence also suggests that evaluation data are not being used to assign teachers to particular schools in district A. District administrators suggested that using data to make within-school teacher assignments is an emerging process, one that district officials are seeking to formalize. In addition, while district administrators suggest that district A publicly encourages teacher leadership and that schools use mentor teachers to coach new or struggling teachers, there is no evidence to suggest that the district or principals systematically use evaluation data to identify teachers for such leadership opportunities.

In district A, evaluation data influence decisions such as remediation that are more traditionally associated with the evaluation process. According to district officials, any district A teacher who receives one or more unsatisfactory ratings on the Danielson Framework for Teaching's 22 components or any teacher with four or more years of experience who receives four or more basic ratings is given a final performance classification of ineffective and is provided specific supports via a formal improvement plan. In surveys, 71 percent of principals agreed that poor-performing teachers in district A are designated for remediation based on their evaluation data (see table C1). Interviewed district A officials explained that—beginning with the 2014/15 school year, as required by state law—teachers at different performance classifications would receive different stipends from Proposition 301 funds (as designated by the district's teacher evaluation working group).

**Implications of teacher evaluation data use.** District officials maintained that the district's extensive training and multiple years of using the Danielson Framework for Teaching have embedded the rubric's language and definitions into the everyday work of teachers and principals and ensured the consistent and reliable rating of instruction. At the same time, district officials noted that, although generally confident in the reliability of their observations, some teachers have expressed concerns about the derivation of their final performance classifications, given the limited measures available. In surveys, 53 percent of principals and 52 percent of teachers agreed that district A's teacher evaluation process has improved instructional practice, and 65 percent of principals agreed that it has benefited students. However, a smaller proportion of teachers (44 percent) agreed that the process has benefitted students (see table C1). A smaller proportion of district A's high school teachers agreed that the teacher evaluation process has benefited their students (38 percent, compared with 46 percent of non-high school teachers;  $p = .01$ ).

## District B

District B enrolled more than 10,000 students in 2013/14 (approximately 30 percent of whom were a racial/ethnic minority) and received a letter grade of A from the state.

**Survey and interview sample.** Information was collected from a structured group interview with the district's superintendent, director of research and assessment, and educational services/teacher training administrator (see table A1 in appendix A), as well as from surveys of 10 of the district's 12 principals (83 percent response rate) and of 130 of its 656 teachers (20 percent response rate; see table A2 in appendix A).

Six of the responding district B principals led an elementary school, and four led a middle or high school. Although respondents had a range of overall experience as principals, 60 percent had been at their current school for two years or less.

Of the 130 responding teachers, 52 percent reported teaching primarily in an elementary school, 18 percent reported teaching primarily in a middle school, 25 percent reported teaching primarily in a high school, and 5 percent reported teaching across grade spans. These proportions generally align with the district B teacher population.

Responding teachers were generally experienced teachers: 47 percent reported having more than 10 years of experience, 34 percent reported having 5–10 years of experience, and 19 percent reported having fewer than 5 years of experience. Across the full district B population of teachers, 39 percent reported having more than 10 years of experience, 33 percent reported having 5–10 years of experience, and 28 percent reported having fewer than 5 years of experience. Responding teachers had also been at their current school for varying amounts of time: 42 percent reported having been at their current school for 2 years or less, 21 percent reported having been at their current school for 3–4 years, and 38 percent reported having been at their current school for 5 or more years.

Responding district B teachers also reported working in a variety of areas: elementary grades (37 percent), special education (16 percent), reading/language arts (14 percent), science (9 percent), math (8 percent), the arts (8 percent), social studies (4 percent), and world languages (3 percent).

**Collecting, accessing, and sharing teacher evaluation data.** District B was an early adopter of evaluation reform, according to the superintendent. The district has used the Stronge Teacher Effectiveness Performance Evaluation System (and its associated online data system) for teacher evaluation since 2011 (box C1).

District B teachers can always access their updated evaluation data (and associated learning plans) in the district's online data system, district officials reported. The information is reviewed during teachers' end-of-year conferences with their supervising administrator and again during their preconference at the beginning of the next school year. Principals receive their teachers' student progress scores via email during the summer. According to district officials, principals also receive whole-school reports from the district displaying how their teachers performed on each standard that year, which the principals can use to identify patterns (for example, by grade level or content area) to determine the school's key professional development needs.

Surveys suggested common understanding of the evaluation data collected—all principals and 81 percent of teachers reported knowing what types of information are collected during teacher evaluations, and 65 percent of teachers agreed that they know how their evaluation data will be used by their administrators (table C2). This understanding varied by grade span taught: 45 percent of responding high school teachers agreed, compared with 72 percent of responding non-high school teachers, a statistically significant difference ( $p = .01$ ).

**Using teacher evaluation data to shape professional development.** After reviewing teachers' evaluation data during the summer and identifying areas of need, principals

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### **Box C1. The Stronge Teacher Effectiveness Performance Evaluation System**

The Stronge Teacher Effectiveness Performance Evaluation System assesses teachers on seven standards, six of which are observed and rated by school administrators via multiple informal and formal classroom visits during the year (with data and comments tracked online) and one of which (student progress) is calculated separately by the district's research and assessment division by applying the district's value-added model to student achievement data from Arizona's Instrument to Measure Standards (AIMS) or the ACT college readiness exam for high school students.

The seven standards assessed are professional knowledge, instructional planning, instructional delivery, assessment, learning environment, professionalism, and student progress. Teachers are rated ineffective, partially effective, effective, or highly effective on each standard. To create an overall summative performance classification that aligns with the requirements of the Arizona Framework for Measuring Educator Effectiveness, teachers' ratings for the student progress standard are weighted at 34 percent, and their ratings for the other six standards are each weighted at 11 percent. The district is piloting the use of the Stronge system's student surveys to allow teachers to adjust to the data before data are incorporated into their learning environment ratings.

Teachers in grades and content areas that are subject to statewide standardized tests receive a student progress rating based on data from AIMS or the ACT, and teachers of subjects whose students do not take standardized tests can choose the exam (AIMS/ACT) and content area (for example, math or reading) that will be used to aggregate their students' performance for their student progress rating.

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**Table C2. District B principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent)**

Statement	Principals ( <i>n</i> = 10)			Statement	Teachers ( <i>n</i> = 130)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree		Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
I know what types of information are collected during the teacher evaluation process in my district.	100.0	0.0	0.0	I know what types of information are collected during the teacher evaluation process in my district.	80.6	6.2	13.2
I have access to a central data system that allows me to analyze my teachers' evaluation data/effectiveness scores.	80.0	10.0	10.0	I know how data collected during my evaluation will be used by school administrators.	65.1	9.3	25.6
After their evaluations, teachers at my school clearly understand the next steps they need to take for their professional growth.	90.0	10.0	0.0	After my evaluation, the next steps I need to take for my professional growth are clear to me.	58.5	19.2	22.3
The teachers I evaluate have the opportunity to engage in professional development opportunities directly linked to the needs identified in their evaluations.	100.0	0.0	0.0	I engage in professional development opportunities directly linked to the needs identified in my evaluation.	46.2	23.9	30.0
I directly oversee the professional development of the teachers I evaluate.	70.0	20.0	10.0	My supervising administrator uses evaluation results to guide my professional growth in a helpful way.	44.2	21.7	34.1

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**Table C2. District B principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent) (continued)**

Statement	Principals ( <i>n</i> = 10)			Statement	Teachers ( <i>n</i> = 130)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree		Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
Teachers in my school are primarily responsible for overseeing their own professional development.	10.0	60.0	30.0	I'm primarily responsible for using evaluation results to guide my own professional development.	70.5	21.7	7.8
I use the data collected during teacher evaluations to determine the professional development offerings at my school.	90.0	10.0	0.0	Administrators use the data collected during teacher evaluations to determine the professional development offerings at my school.	24.2	32.0	43.8
From my perspective, the district does a good job linking its professional development offerings with the needs identified through teachers' evaluations.	70.0	10.0	20.0	From my perspective, the district does a good job linking its professional development offerings with the needs identified in teachers' evaluations.	19.5	32.8	47.7
In my district, teacher evaluation results are used to assign teachers to particular schools.	0.0	20.0	80.0	District administrators use teacher evaluation results to assign teachers to particular schools.	10.9	52.7	36.4
I use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	50.0	30.0	20.0	School administrators use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	30.2	44.2	25.6
Poor-performing teachers in my school are designated for remediation based on their evaluation results.	90.0	10.0	0.0	Poor-performing teachers in my district are designated for remediation based on their evaluation results.	38.3	40.6	21.1
My district provides me with adequate guidance about how to use teacher evaluation data/effectiveness scores to make decisions.	90.0	0.0	10.0	In my district, evaluation results are used to determine which teachers are retained.	52.3	28.9	18.8
In my school, evaluation results are used to promote teachers.	20.0	60.0	20.0	In my district, evaluation results are used to promote teachers.	11.7	43.0	45.3
In my school, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	70.0	20.0	10.0	In my district, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	60.2	19.5	20.3
From my perspective, the district's new teacher evaluation process has improved teachers' instructional practice.	70.0	20.0	10.0	The teacher evaluation process used in my district has led me to improve my instructional practice.	46.9	21.5	31.5
From my perspective, the district's new teacher evaluation process has benefited students.	77.8	11.1	11.1	The teacher evaluation process used in my district has benefited my students.	37.2	25.6	37.2

**Note:** Percentages may not sum to 100 across rows because of rounding.

**Source:** Authors' analysis of data provided by the Arizona Department of Education, 2015.

communicate the needs to the district's instructional coaches, district officials explained. Funded by Proposition 301, district B's coaches provide support around curriculum and instruction but do not play a formal role in teachers' evaluation. After summer planning, the principal may elect to have coaches work with teachers online through the district's integrated system, during afterschool sessions, or via one-on-one coaching. Participation in district B's professional development courses is tracked online. District administrators emphasized the importance of having teachers' professional development and evaluation data linked in an online system, both to make the process seamless for teachers and to allow for principal oversight. While teachers have some discretion in their individual professional development choices, the training reportedly has to be aligned with their evaluation data, according to district officials.

In surveys, district B teachers were more skeptical than principals about whether their school and district connected evaluation data with professional development, and teachers tended to view themselves—rather than administrators—as the primary agents of their learning and growth. Seventy-one percent of teachers reported that they are primarily responsible for using evaluation data to guide their own professional development, and only 44 percent agreed that their supervising administrator uses evaluation data to guide their professional growth in a helpful way. Principals tended to acknowledge the district's efforts in this area, with 70 percent of responding principals agreeing that district B does a good job linking its professional development offerings with the needs identified in teachers' evaluations (see table C2). However, 20 percent of responding teachers agreed with the same statement.

Fifty-nine percent of responding district B teachers agreed that the next steps they need to take for their professional growth were clear to them after their evaluations, and 46 percent reported that they engaged in professional development opportunities linked directly to the needs identified in their evaluations (see table C2).

More skepticism was evident among high school teachers and among teachers who have been at their school for five years or more: a significantly smaller proportion of high school teachers (than non–high school teachers) and teachers who have been at their school for five years or more (than those with fewer years at the site) agreed that their supervising administrator uses evaluation data to guide their professional growth in a helpful way and that the district does a good job linking its professional development offerings with the needs identified in teachers' evaluations ( $p < .05$ ).

**Using teacher evaluation data for talent management.** Participating district B officials said they train principals to make talent management decisions, and 90 percent of responding district principals agreed that the district provides them with adequate guidance about how to use teacher evaluation data to make decisions. District B teachers who do not meet their learning targets and are rated low on other Stronge standards are placed on improvement plans, which include substantial intervention in their areas of weakness, district officials reported. Evaluation data are also used to identify high-performing teachers, who are in turn called on to lead their schools' professional learning communities and to lead professional development sessions at their school and other schools in the district. Moreover, according to district officials, teachers who meet certain student achievement benchmarks are provided stipends using Proposition 301 funds.

Decisions regarding teacher assignments to schools are handled at the central office, among the superintendent, human resources staff, and principals, as well as at the school level, among principals and grade-level teams. While the district provides data to principals and supports their decisionmaking, district officials emphasized that principals make final decisions regarding placements in their schools. At the same time, principal and teacher survey data indicate that it is not a common practice in district B to use teacher evaluation data to assign teachers to schools or classrooms (see table C2).

**Implications of teacher evaluation data use.** Participating district officials emphasized that they have worked hard in recent years to instill a culture rooted in collaboration and data-based decisionmaking, for example, by regularly dedicating time for collaboration, data review, and feedback, by having teachers assume leadership roles, by having leaders reference supporting data and evidence in all their decisions, and by hiring people with the experience and desire to work in a data-centric workplace. This culture has helped facilitate the implementation of teacher evaluations, which are seen as aligning with much of the work that was already underway in district B prior to adoption of the Arizona Framework for Measuring Educator Effectiveness.

At the same time, district officials acknowledged that teachers are apprehensive about being evaluated based on student test data and student survey data, as such measures may be influenced by outside factors unrelated to their teaching effectiveness. Perhaps partly because of this apprehension, district B teachers were more dubious of their evaluation's impact than were principals, who on surveys tended to agree that the district's new teacher evaluation process has improved teachers' instructional practice (70 percent agreed) and benefited students (78 percent agreed). A smaller proportion of teachers agreed that their evaluations improved teaching (47 percent) and benefited students (37 percent; see table C2).

### District C

District C enrolled more than 6,000 students in 2013/14 (more than 50 percent of whom were a racial/ethnic minority) and received a letter grade of B from the state.

**Survey and interview sample.** Information was collected from structured interviews with the district's superintendent, director of assessment and data, and two academic coaches (see table A1 in appendix A), as well as from surveys of 5 of the district's 10 principals (50 percent response rate) and of 183 of its 325 teachers (56 percent response rate; see table A2 in appendix A).

Of the 183 responding teachers, 57 percent reported teaching primarily in an elementary school, 24 percent reported teaching primarily in a middle school, and 19 percent reported teaching primarily in a high school. These proportions generally align with the district C teacher population.

The survey drew disproportionately from district C's most experienced teachers: 43 percent of responding teachers reported having more than 10 years of experience, 26 percent reported having 5–10 years of experience, and 31 percent reported having fewer than 5 years of experience. According to administrative data obtained from the district, among the district's full teacher population, 4 percent had more than 10 years of experience, 26 percent had 5–10 years of experience, and 70 percent had fewer than 5 years of experience. Survey

respondents reported less experience at their current school: 36 percent reported having been at their current school for 2 years or less, and 32 percent reported having been at their current school for 3–4 years.

Responding teachers also reported working in a variety of areas: elementary grades (39 percent), special education (15 percent), math (11 percent), reading/language arts (10 percent), the arts (8 percent), physical education (4 percent), science (3 percent), social studies (3 percent), career and technical education (3 percent), and various other assignments (3 percent).

**Collecting, accessing, and sharing teacher evaluation data.** District C has evaluated its teachers using the Arizona Department of Education's teacher evaluation model since August 2012, when it began participating in the state's voluntary pilot. The state model assesses teachers using classroom observations by principals during the year (based on the Danielson Framework for Teaching); end-of-year online surveys of students, parents, and peer teachers; and measures of student academic progress based on teaching assignment, as defined by state-created rating tables. A portion of all district C teachers' student academic progress rating is determined by their performance on student learning objectives focused on students' growth over the course of the year, as determined by district assessment data gathered via a pretest, three benchmark tests, and a posttest.

Once the various evaluation data have been collected from the relevant measures—observation data, survey data, prior-year state test scores, and current-year benchmark assessment data—a state-trained district data official enters the data into the state-designed spreadsheet appropriate for the teaching assignment, and embedded formulas calculate the teacher's summative performance classification (see <http://www.azed.gov/teacherprincipal-evaluation/teacher-rating-tables/> for the state-developed spreadsheets and rating tables).

Participating district C officials noted that their teachers and principals are generally well versed in the Danielson Framework for Teaching because the district adopted it several years prior to the state's 2011 evaluation regulations. Site administrators preconference with teachers before formal observations to discuss the lesson and its goals and then record their ratings and notes during the observation (either by hand or via laptop or tablet). Data are then shared with the teacher during a post-conference and reviewed during the end-of-year evaluation conference. To maintain common understanding and expectations and promote inter-rater reliability, the district hosts several video-based calibration and training sessions for principals during the year. Teachers can also regularly access their students' benchmark assessment data online via the district's data system, and district C instructional coaches reported that they review these data in their weekly meetings with teachers. In surveys, 73 percent of district C teachers agreed that they know what types of information are collected during the evaluation process.

**Using teacher evaluation data to shape professional development.** Evidence suggests that professional development offerings are not formally aligned with teacher evaluation data in district C. In surveys, 40 percent of responding principals and 16 percent of responding teachers agreed that the district does a good job linking its professional development offerings with the needs identified through teachers' evaluations, and 38 percent of responding teachers agreed that after their evaluation, the next steps they need to take for their professional growth are clear to them (table C3). Responding high school teachers were

**Table C3. District C principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent)**

Statement	Principals ( <i>n</i> = 5)			Statement	Teachers ( <i>n</i> = 183)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree		Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
I know what types of information are collected during the teacher evaluation process in my district.	100.0	0.0	0.0	I know what types of information are collected during the teacher evaluation process in my district.	72.9	11.6	15.5
I have access to a central data system that allows me to analyze my teachers' evaluation data/effectiveness scores.	60.0	0.0	40.0	I know how data collected during my evaluation will be used by school administrators.	43.9	22.0	34.1
After their evaluations, teachers at my school clearly understand the next steps they need to take for their professional growth.	80.0	20.0	0.0	After my evaluation, the next steps I need to take for my professional growth are clear to me.	38.1	23.2	38.7
The teachers I evaluate have the opportunity to engage in professional development opportunities directly linked to the needs identified in their evaluations.	80.0	0.0	20.0	I engage in professional development opportunities directly linked to the needs identified in my evaluation.	48.4	20.3	31.3
I directly oversee the professional development of the teachers I evaluate.	20.0	40.0	40.0	My supervising administrator uses evaluation results to guide my professional growth in a helpful way.	45.1	24.2	30.8
Teachers in my school are primarily responsible for overseeing their own professional development.	20.0	20.0	60.0	I'm primarily responsible for using evaluation results to guide my own professional development.	58.8	23.6	17.6
I use the data collected during teacher evaluations to determine the professional development offerings at my school.	100.0	0.0	0.0	Administrators use the data collected during teacher evaluations to determine the professional development offerings at my school.	16.5	40.1	43.4
From my perspective, the district does a good job linking its professional development offerings with the needs identified through teachers' evaluations.	40.0	40.0	20.0	From my perspective, the district does a good job linking its professional development offerings with the needs identified in teachers' evaluations.	15.9	35.2	48.9
In my district, teacher evaluation results are used to assign teachers to particular schools.	0.0	0.0	100.0	District administrators use teacher evaluation results to assign teachers to particular schools.	1.6	47.0	51.4
I use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	80.0	20.0	0.0	School administrators use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	11.6	42.0	46.4
Poor-performing teachers in my school are designated for remediation based on their evaluation results.	60.0	20.0	20.0	Poor-performing teachers in my district are designated for remediation based on their evaluation results.	26.9	45.6	27.5
My district provides me with adequate guidance about how to use teacher evaluation data/effectiveness scores to make decisions.	60.0	40.0	0.0	In my district, evaluation results are used to determine which teachers are retained.	25.7	42.6	31.7
In my school, evaluation results are used to promote teachers.	0.0	40.0	60.0	In my district, evaluation results are used to promote teachers.	6.6	40.7	52.8

(continued)

**Table C3. District C principals' and teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent) (continued)**

Statement	Principals ( <i>n</i> = 5)			Statement	Teachers ( <i>n</i> = 183)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree		Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
In my school, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	100.0	0.0	0.0	In my district, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	70.7	16.0	13.3
From my perspective, the district's new teacher evaluation process has improved teachers' instructional practice.	20.0	20.0	60.0	The teacher evaluation process used in my district has led me to improve my instructional practice.	24.2	28.0	47.8
From my perspective, the district's new teacher evaluation process has benefited students.	20.0	20.0	60.0	The teacher evaluation process used in my district has benefited my students.	12.6	21.9	65.6

**Note:** Percentages may not sum to 100 across rows because of rounding.

**Source:** Authors' analysis of data provided by the Arizona Department of Education, 2015.

particularly skeptical on this front: a significantly smaller proportion of responding district C high school teachers than of non-high school teachers reported engaging in professional development opportunities linked directly to the needs identified in their evaluation (37 percent versus 51 percent;  $p = .04$ ) and that the next steps for their professional growth were clear to them after their evaluations (18 percent versus 43 percent;  $p = .02$ ).

To identify priority areas for professional development and to design the annual schedule of districtwide learning opportunities, the district's professional development coordinator gathers feedback from principals and coaches during regular meetings as well as from teachers (through an online survey), according to the district officials interviewed. In addition to employing six instructional coaches, district C holds four early-release professional development days each year, during which teachers can attend various workshops.

Principals can monitor their teachers' participation in these activities through attendance records, and teachers must submit a professional development portfolio under domain 4 of the Danielson Framework for Teaching (professional responsibilities). However, in surveys 20 percent of responding principals agreed that they directly oversee the professional development of the teachers they evaluate, and 45 percent of teachers agreed that their supervising administrator uses evaluation data to guide their professional growth in a helpful way (see table C3). Moreover, 59 percent of responding teachers reported that they were primarily responsible for using evaluation data to guide their own professional development, whereas 20 percent of responding principals indicated that this was the case.

**Using teacher evaluation data for talent management.** District C trains principals to make talent management decisions during the district's annual summer leadership retreat. In surveys, 60 percent of principals agreed that the district provides them with adequate guidance about how to use teacher evaluation data to make decisions. For example, teachers rated as ineffective must complete an improvement plan, and the principal and instructional coach work closely with the teacher to identify specific action items and timelines.

Meanwhile, teachers rated effective or highly effective are provided with a bonus from Proposition 301 funds (as determined by a committee of teachers and administrators). Evaluation data are not used to identify teacher leaders or to assign teachers to particular schools; instead, such assignments are based on teacher preferences and school needs (as determined by district and school leaders). However, 80 percent of responding principals reported that they use teacher evaluation data to assign teachers to particular classrooms, subjects, or grade levels—though 12 percent of responding teachers agreed that this was the case (see table C3).

**Implications of teacher evaluation data use.** Participating district officials maintained that the new accountability imposed by the evaluation system has created a culture that values quality instruction and continuous improvement, and noted that having used the Danielson Framework for Teaching for several years has raised expectations and facilitated valuable dialogue about instructional strategies between principals and teachers and among teachers during professional learning community meetings. District officials also noted that teachers appear to be embracing the use of data to improve their work. Instructional coaches—who are not part of the formal evaluation process—now meet more regularly with teachers to review data and noted improvements in instruction as a result of their work with new and struggling teachers.

However, district officials admitted that newer evaluation measures—in particular, student and parent surveys and student learning objectives (measured through a series of benchmark tests during the year)—have confused and worried teachers. Indeed, responding teachers tended to be skeptical of the district’s evaluation process. Less than 25 percent of responding principals and teachers reported that the district’s teacher evaluation process has improved teachers’ instructional practice or benefited students (see table C3). While they claimed that understanding is growing among principals and teachers, district officials acknowledged that ongoing communication, training, and support will be vital to the system’s success.

#### District D

District D enrolled fewer than 1,000 students in 2013/14 (more than 85 percent of whom were a racial/ethnic minority) and received a letter grade of C from the state.

**Survey and interview sample.** Information was collected from structured interviews with the district’s superintendent, school principal, and two data specialists (see table A1 in appendix A), as well as from surveys of 26 the district’s 41 teachers (63 percent response rate; see table A2 in appendix A).

Respondents were generally experienced teachers: 75 percent reported having been at their current school for at least 5 years, and 73 percent reported having more than 10 years of experience. The proportion of teachers with more than 10 years of experience aligns with the district D teacher population, 77 percent of whom had more than 10 years of experience.

Of the responding teachers, 46 percent reported teaching elementary school, and others reported teaching reading/language arts, math, science, special education, social studies, and physical education (with 8–12 percent in each subject).

**Collecting, accessing, and sharing teacher evaluation data.** District D also adopted the Arizona Department of Education's teacher evaluation model in 2012, and since then has evaluated teachers using that set of multiple measures: observations by principals based on the Danielson Framework for Teaching; end-of-year online surveys of students, parents, and peer teachers; and measures of student academic progress based on teaching assignment, as defined by state-created rating tables (and including at least two student learning objectives based on data from district benchmark assessments).

The district D principal records his ratings and notes from classroom observations in one online data system, and students' pre- and post-test scores that serve as the basis for teachers' student learning objectives are stored online in another database. Teachers can access both databases to review their observation data and student achievement data. The student, parent, and peer survey data are collected via a separate online survey tool that is accessible only to district data officials.

Once the teacher's relevant evaluation data are collected and entered into the appropriate state-designed spreadsheet, embedded formulas calculate the teacher's summative performance classification. A summary of the data for each teacher is then provided to the district D principal for discussion during the teacher's end-of-year evaluation conference. Surveys suggest that teachers tend to understand the process: 89 percent reported knowing what types of information are collected during teacher evaluations, and 58 percent reported knowing how data collected during their evaluation will be used by school administrators (table C4).

**Using teacher evaluation data to shape professional development.** In interviews, district and school leaders in district D maintained that observation and student academic progress data from the evaluation process are being used to design districtwide, schoolwide, and individual teacher's professional development plans. They did not indicate whether or how parent and student survey data were being used. District officials emphasized that the district's sustained implementation of the Danielson Framework for Teaching since 2012 has helped focus the district's efforts to align professional development offerings with the framework.

The superintendent explained that the district's review of the observed levels of teacher practice across its schools helped target district trainings toward particular areas—for example, creating effective classroom relationships and environments. The superintendent added that the district also eliminated in-school suspensions based on evaluation data regarding teachers' relationships with students. Similarly, the principal pointed out that he reviews observation data with the district's instructional coaches to define teachers' key growth areas and target schoolwide improvements, such as in differentiated instruction and student engagement. Schoolwide professional development is offered every Friday for two hours at the school through in-person trainings or professional learning communities. However, responding district D teachers seemed less convinced of the connection between their evaluation data and the professional development offered by the school and district. Twenty-three percent agreed that the district does a good job linking its professional development offerings with the needs identified in teachers' evaluations, and 39 percent agreed that administrators use evaluation data to determine the professional development offerings at their school (see table C4). This perception varied by experience level: 32 percent of responding teachers with more than 10 years of experience agreed, and no teachers with less experience agreed ( $p = .02$ ).

**Table C4. District D teachers' agreement with statements about their experiences with the district's teacher evaluation process (percent)**

Statement	Teachers (n = 26)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
I know what types of information are collected during the teacher evaluation process in my district.	88.5	3.9	7.7
I know how data collected during my evaluation will be used by school administrators.	57.7	30.8	11.5
After my evaluation, the next steps I need to take for my professional growth are clear to me.	57.7	26.9	15.4
I engage in professional development opportunities directly linked to the needs identified in my evaluation.	53.9	30.8	15.4
My supervising administrator uses evaluation results to guide my professional growth in a helpful way.	46.2	26.9	26.9
I'm primarily responsible for using evaluation results to guide my own professional development.	57.7	42.3	0.0
Administrators use the data collected during teacher evaluations to determine the professional development offerings at my school.	38.5	50.0	11.5
From my perspective, the district does a good job linking its professional development offerings with the needs identified in teachers' evaluations.	23.1	46.2	30.8
District administrators use teacher evaluation results to assign teachers to particular schools.	7.7	76.9	15.4
School administrators use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	50.0	30.8	19.2
Poor-performing teachers in my district are designated for remediation based on their evaluation results.	15.4	76.9	7.7
In my district, evaluation results are used to determine which teachers are retained.	23.1	61.5	15.4
In my district, evaluation results are used to promote teachers.	3.9	50.0	46.1
In my district, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	52.0	16.0	32.0
The teacher evaluation process used in my district has led me to improve my instructional practice.	57.7	26.9	15.4
The teacher evaluation process used in my district has benefited my students.	42.3	38.5	19.2

**Note:** Percentages may not sum to 100 across rows because of rounding. Because district D has only one principal, only teachers were surveyed, and the principal was interviewed.

**Source:** Authors' analysis of data provided by the Arizona Department of Education, 2015.

To support the professional growth of individual teachers, district and school leaders reported that the principal and instructional coaches collaborate with teachers to help them develop their individual professional learning plans based on their evaluation data. To do so, the principal reviews evaluation data and suggests various ways for the teacher to improve his or her practice, such as accessing instructional videos or meeting one-on-one with a particular instructional coach. He also explained that each grade-level grouping has instructional coaches to help teachers analyze their observation data or their students' benchmark assessment data to plan new instructional strategies and consider next steps for professional development (some of the instructional coaches were hired specifically to facilitate student data–driven discussions with teachers). These connections are supported by teacher survey data—58 percent of district D teachers agreed that the next steps they need to take for their professional growth were clear to them after their evaluations, and 54 percent agreed that they engage in professional development opportunities linked directly to the needs identified

in their evaluations (see table C4). At the same time, 58 percent agreed that they are primarily responsible for using evaluation data to guide their own professional development.

**Using teacher evaluation data for talent management.** Evidence suggests that district and school leaders in district D are using teacher evaluation data to make strategic talent management decisions, not only regarding remediation, retention, and compensation—teachers rated effective or highly effective receive \$500 stipends from Proposition 301 funds (a plan developed by teachers, according to the superintendent)—but also to identify teacher leaders and assign teachers to particular classrooms. For example, when recently considering teachers for a special assignment instructional coaching position, the superintendent examined the observation and student assessment data for effective and highly effective applicants only. The principal also relies on evaluation data when shifting teachers to try to create effective grade-level teams.

**Implications of teacher evaluation data use.** According to the superintendent and the principal, district D's evaluation system has helped focus discussions between the principal and teachers and among teachers on the effective practices defined in the Danielson Framework for Teaching as well as on student progress data. The principal said that the evaluation system's focus on multiple observations and reviewing student data has allowed teachers to get the whole picture of their instruction, which has made them reflective practitioners and benefitted students. And district data officials added that teachers find student learning objectives helpful because the process helps them focus on monitoring student progress and differentiating instruction. The superintendent concurred, noting that teachers are now disaggregating and analyzing individual students' data to plan next steps, a recent occurrence. There appears to be consensus that the evaluation process has improved teaching practice in district D. Agreeing with their district and school leaders, 58 percent of responding teachers reported that the system has led them to improve their instructional practice (see table C4).

However, some district officials expressed concerns that some teachers are merely complying with the evaluation system's rules rather than authentically embracing the reflection and continuous improvement aspects of the process. Forty-two percent of responding teachers agreed that district D's teacher evaluation process has benefited their students, and 19 percent disagreed (see table C4).

#### District E

District E enrolled more than 9,000 students in 2013/14 (more than 70 percent of whom were a racial/ethnic minority) and received a letter grade of B from the state.

**Survey and interview sample.** Information was collected from interviews with the district's associate superintendent for school improvement, executive director of human resources, associate superintendent for curriculum and instruction, and two instructional coaches (see table A1 in appendix A), as well as from surveys of 15 of the district's 17 principals (88 percent response rate) and of 122 of its 460 teachers (27 percent response rate; see table A2 in appendix A).

Ten responding principals led an elementary school, and five led a middle school. Responding principals had a range of experience, both at their current school and overall as principals: a third of respondents reported more than 10 years of experience as a principal, and a third reported having been an administrator at their current school for more than 10 years.

Two-thirds of responding teachers reported teaching primarily in an elementary school, and one-third reported teaching primarily in a middle school. These proportions generally align with the district's teacher population. Responding teachers were generally experienced teachers: 59 percent reported having more than 10 years of experience, 23 percent reported having 5–10 years of experience, and 18 percent reported having fewer than 5 years of experience. According to administrative data obtained from the district, 41 percent of the district's full teacher population had more than 10 years of experience in 2014/15, 24 percent had 5–10 years of experience, and 35 percent had fewer than 5 years of experience. Responding teachers had been at their current school for varying amounts of time: 31 percent reported having been at their current school for 2 years or less, 32 percent reported having been at their current school for 3–10 years, 37 percent reported having been at their current school for more than 10 years.

Responding teachers also reported working in a variety of areas: elementary school (51 percent), special education (16 percent), reading/language arts (11 percent), math (6 percent), social studies (5 percent), physical education (4 percent), science (4 percent), and the arts (3 percent).

**Collecting, accessing, and sharing teacher evaluation data.** Teacher evaluations in district E are based on observations of teachers using the Marzano Teacher Evaluation Model—which assesses teachers across four domains: classroom strategies and behaviors (with 41 rated elements), preparing and planning (8 elements), reflecting on teaching (5 elements), and collegiality and professionalism (6 elements)—as well as on school-level student achievement growth data from district benchmark assessments. District E switched from the Danielson Framework for Teaching to the Marzano Teacher Evaluation Model in 2012.

Principals or assistant principals conduct multiple formal and informal observations of teachers' classroom practice throughout the school year, often immediately entering data into the district's online data system, which compiles the ratings and feedback principals give teachers on the different elements of the Marzano Teacher Evaluation Model. Coaches and peer teachers also informally observe district E teachers and provide formative instructional feedback directly to the teacher, but this information is not shared with administrators and does not contribute to the teacher's final performance classification. Teachers can access the online system and review this information over time.

In addition to observation data, the district incorporates student growth data from district benchmark assessments into teachers' final performance classifications. District E students take these local benchmark assessments four times during the school year, and school leaders and teachers can access the district's online testing system to review their students' data. At the end of the school year, the student academic progress portion of teachers' performance classifications are awarded based on the aggregate growth of the students across the entire school. District E officials reported that they are still trying to determine the best way to incorporate student test data into teacher evaluations.

Surveys suggest that the data collection process is generally understood by participants—all responding principals and 85 percent of responding teachers agreed that they know what types of information are collected during teacher evaluations, and 65 percent of responding district E teachers agreed that they know how the data collected during their evaluation will be used by school administrators (table C5).

**Table C5. District E principals' and teachers' agreement with statements based on their experiences with the district's teacher evaluation process (percent)**

Statement	Principals ( <i>n</i> = 15)			Statement	Teachers ( <i>n</i> = 122)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree		Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
I know what types of information are collected during the teacher evaluation process in my district.	100.0	0.0	0.0	I know what types of information are collected during the teacher evaluation process in my district.	85.1	9.1	5.8
I have access to a central data system that allows me to analyze my teachers' evaluation data/effectiveness scores.	100.0	0.0	0.0	I know how data collected during my evaluation will be used by school administrators.	64.8	20.5	14.8
After their evaluations, teachers at my school clearly understand the next steps they need to take for their professional growth.	53.3	40.0	6.7	After my evaluation, the next steps I need to take for my professional growth are clear to me.	66.4	23.0	10.7
The teachers I evaluate have the opportunity to engage in professional development opportunities directly linked to the needs identified in their evaluations.	66.7	33.3	0.0	I engage in professional development opportunities directly linked to the needs identified in my evaluation.	59.5	25.6	14.9
I directly oversee the professional development of the teachers I evaluate.	60.0	26.7	13.3	My supervising administrator uses evaluation results to guide my professional growth in a helpful way.	52.5	29.5	18.0
Teachers in my school are primarily responsible for overseeing their own professional development.	13.3	33.3	53.3	I'm primarily responsible for using evaluation results to guide my own professional development.	78.5	15.7	5.8
I use the data collected during teacher evaluations to determine the professional development offerings at my school.	42.9	35.7	21.4	Administrators use the data collected during teacher evaluations to determine the professional development offerings at my school.	43.3	34.2	22.5
From my perspective, the district does a good job linking its professional development offerings with the needs identified through teachers' evaluations.	40.0	33.3	26.7	From my perspective, the district does a good job linking its professional development offerings with the needs identified in teachers' evaluations.	40.2	29.5	30.3
In my district, teacher evaluation results are used to assign teachers to particular schools.	13.3	0.0	86.7	District administrators use teacher evaluation results to assign teachers to particular schools.	11.5	49.2	39.3
I use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	26.7	20.0	53.3	School administrators use teacher evaluation results to assign teachers to particular classrooms, subjects, or grade levels.	20.5	45.1	34.4
Poor-performing teachers in my school are designated for remediation based on their evaluation results.	93.3	6.7	0.0	Poor-performing teachers in my district are designated for remediation based on their evaluation results.	45.1	39.3	15.6
My district provides me with adequate guidance about how to use teacher evaluation data/effectiveness scores to make decisions.	53.3	40.0	6.7	In my district, evaluation results are used to determine which teachers are retained.	41.3	41.3	17.4
In my school, evaluation results are used to promote teachers.	7.1	14.3	78.6	In my district, evaluation results are used to promote teachers.	15.6	43.4	41.0

(continued)

**Table C5. District E principals' and teachers' agreement with statements based on their experiences with the district's teacher evaluation process (percent) (continued)**

Statement	Principals ( <i>n</i> = 15)			Statement	Teachers ( <i>n</i> = 122)		
	Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree		Agree or strongly agree	Neither agree nor disagree	Disagree or strongly disagree
In my school, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	26.7	13.3	60.0	In my district, a teacher's evaluation results impacts the amount of compensation (pay) he or she receives.	38.0	22.3	39.7
From my perspective, the district's new teacher evaluation process has improved teachers' instructional practice.	46.7	26.7	26.7	The teacher evaluation process used in my district has led me to improve my instructional practice.	59.5	22.3	18.2
From my perspective, the district's new teacher evaluation process has benefited students.	60.0	33.3	6.7	The teacher evaluation process used in my district has benefited my students.	45.9	27.9	26.2

**Note:** Percentages may not sum to 100 across rows because of rounding.

**Source:** Authors' analysis of data provided by the Arizona Department of Education, 2015.

Principals and district administrators regularly review teachers' performance classifications across the district to see whether schools have similar distributions of teachers ranked highly effective, effective, developing, and ineffective, according to one district official.

**Using teacher evaluation data to shape professional development.** District officials reported in interviews that they are working toward aligning districtwide professional development sessions (which are delivered five times each year) with the definitions of high-quality instruction outlined in the Marzano Teacher Evaluation Model. Each district E school also has regular early release days devoted to whole-school professional development, commonly involving presentations and small group discussions. Teachers may also choose to attend afterschool professional development sessions provided by instructional coaches, and can access the various Marzano resources as needed. Surveys indicated that this aligned support remains a work in progress. Forty percent of responding principals and 40 percent of responding teachers agreed that the district does a good job linking its professional development offerings with the needs identified through teachers' evaluations (see table C5).

Principals have individual conversations with teachers at the beginning of the school year and devise an improvement plan based on their evaluation data from the previous year, according to the instructional coaches interviewed. All district E teachers develop individual professional growth plans, not just those who rated low on Marzano-based observations. Throughout the school year, principals observe teachers and give them feedback using the online observation system. In addition, instructional coaches help teachers analyze their students' benchmark test data during weekly team meetings, and work individually with teachers to ensure that they devise actions plans to change their instruction based on these data. Responding district E teachers tended to agree that the link between their evaluations and their professional development was strong—66 percent reported that the next steps they need to take for their professional growth were clear after their evaluations, and 60 percent agreed that they engage in professional development opportunities directly linked to the needs identified in their evaluations. And 53 percent agreed that

their supervising administrator uses evaluation data to guide their professional growth in a helpful way. Each of these statements was supported by a majority of responding principals as well (see table C5).

**Using teacher evaluation data for talent management.** Evidence suggests that teacher evaluation data are not being used systematically to identify teacher leaders or to assign teachers to different schools or classrooms in district E. The district also does not differentiate teachers' pay based on their evaluation data, according to school and district officials. Proposition 301 funds are instead dispersed to all teachers in particular schools according to a varied set of performance indicators determined by the district's teachers, including the school's letter grade from the state, schoolwide growth on benchmark assessments, and parent and student survey feedback. District and school leaders reported that evaluation data are used to identify teachers for remediation. Those on remediation plans due to poor performance must identify specific skill areas within the Marzano Teacher Evaluation Model to develop in partnership with an instructional coach. Principals then monitor their progress, and if they do not improve, their contracts are not renewed, district officials reported.

**Implications of teacher evaluation data use.** District officials and instructional coaches maintained in interviews that, under district E's evaluation system, teachers are receiving more specific and timely feedback on their practice and are more often tracking their students' progress on benchmark assessments. District officials also reported that the district's online observation data system has made observations more efficient, allowing principals to visit classrooms, observe, and give feedback more often than in previous years. The interviewed instructional coaches agreed and suggested that teachers are growing more comfortable receiving and discussing online feedback from principals, and are requesting more feedback, more often. Sixty percent of responding district E teachers agreed that the district's evaluation process has led them to improve their instructional practice, although a smaller proportion of responding principals (47 percent) agreed that this was the case. Conversely, 60 percent of principals reported that the process has benefitted students, and 46 percent of teachers agreed that this was the case.

## **Notes**

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1. Value-added models attempt to measure a teacher's impact on student test scores independent of other factors affecting achievement and use different statistical methods to adjust for students' prior performance and background characteristics
2. In district A, value-added scores are not part of the evidence used in remediation decisions; only teachers with one or more unsatisfactory ratings (or four or more basic ratings for more experienced teachers) are assigned a final performance classification of ineffective. In district B principals receive teachers' value-added scores and associated standard errors, and teachers receive a rating of 4 (highly effective) for Stronge standard 7 (student progress) if their value-added score is not statistically significant.
3. A teacher is generally placed in remediation status (and required to establish a documented plan for improvement) when he or she is rated ineffective or unsatisfactory during one or more evaluations.
4. Similar suspicions were raised in teacher focus groups across the sample of districts studied in Ruffini et al.'s (2014) study of the implementation of new teacher evaluations in Arizona.

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